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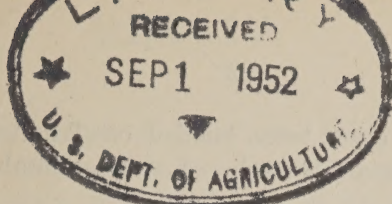
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## United States Department of Agriculture,

2 U. S. BUREAU OF PLANT INDUSTRY,

2a Office of Crop Physiology and Breeding Investigations, 5a

WASHINGTON, D. C.

### 3 THE RUSK CITRANGE.<sup>1</sup>

The Rusk citrange originated as a hybrid between the common orange used as the female parent and the Trifoliolate orange used as the male parent. The trees are far more hardy than the common orange and produce a fruit intermediate in qualities between the two parents. This being the first hardy orange or citrange produced and belonging to an entirely new group of citrus fruits which will doubtless become of very great importance in many parts of the world and be improved in a marked degree, it has been named the "Rusk," in honor of former Secretary of Agriculture Hon. J. M. Rusk, under whose administration the first work on citrus fruits in Florida was undertaken by the Department of Agriculture.

The Rusk citrange was one of three seedlings grown from a single hybrid fruit which developed in the grove of Col. G. H. Norton, at Eustis, Fla., in 1897. Two of the seedlings, from which several budded trees have been grown, resemble the ordinary sweet orange in foliage and general character, and are apparently false hybrids from seeds of adventive, polyembryonic embryos, which are developed from certain cells of the mother tissue without the intervention of the male element and are, in fact, merely bud variations of the mother variety. The other seedling, No. 716, was a strictly intermediate type having trifoliolate leaves similar to those of the male parent, though rather larger. Even the first leaves of the young seedling exhibited this character, and a photograph of a seedling but slightly more than 1 inch high published in the Yearbook of the Department of Agriculture for 1897 plainly shows this Trifoliolate character. No. 716 was furthermore much larger and more vigorous than the other two seedlings, showing an increase in vigor, which is such a marked character of hybrids in general.

Trees were budded with these hybrids in the spring of 1899 in the nursery of Mr. G. L. Taber, at Glen Saint Mary, Fla. The first fruits were received in September, 1902, one tree that season bearing about a dozen fruits. In the fall of 1903 the same tree produced about a bushel

<sup>1</sup> Compiled with slight emendations from "New Citrus Creations of the Department of Agriculture," by Herbert J. Webber and Walter T. Swingle, Yearbook, 1904, pp. 221-240, pls. x-xxii.



of fruits, and several other trees, budded on Trifoliate-orange stock, gave about a half dozen fruits each. A similar number was produced in 1904.

The Rusk citrange has since fruited in most of the cotton-growing States and has proved to be one of the most fruitful of all the citranges. It has the very great advantage of fruiting while still very young, which, together with its rapid growth, handsome foliage, and beautiful, bright-red fruits, renders it one of the most desirable trees for planting in the home orchard or on the lawns about the home as an ornament.

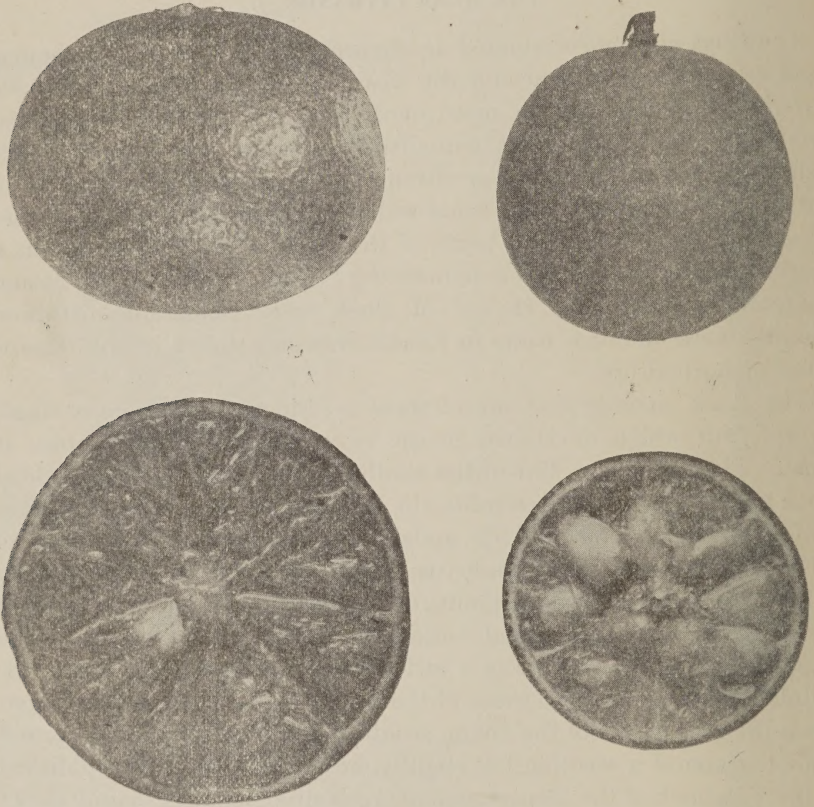


FIG. 1.—Fruits of Rusk citrange (on the left) and Trifoliate orange (on the right).  
(Natural size.)

The fruit of the Rusk is a beautiful little orange of excellent texture and exceedingly juicy. The bitterness is no more pronounced than in the grapefruit, and the aroma, which is derived largely from the Trifoliate orange, is very strong and pleasant. The fruit of the Rusk may be utilized for making citrangeade, similar to lemonade or limeade. It also makes excellent pies, preserves, and marmalade, and may be used for general culinary purposes. It may even be eaten as a breakfast fruit if sugar is used freely.

The skin is very strongly flavored with oil and must be kept out of the citrangeade. This can be accomplished very easily by cutting the skin away from a strip about the middle of the fruit and then cutting the citrange in half. The juice may be readily squeezed out by hand so that a lemon squeezer is not necessary. The flavor of the citrange, unlike that of the lemon, which has merely a very acid, nearly flavorless juice, is located in the pulp, and the skin is not necessary to flavor the citrangeade, as the skin of the lemon is in making lemonade.

*Description of fruit and tree.*—Fruit compressed, spherical or nearly round; small,  $1\frac{1}{2}$  to 2 inches in diameter,  $1\frac{1}{4}$  to  $1\frac{3}{8}$  inches high; color, when fully mature, deep orange, with reddish flush of cadmium orange at apex; surface smooth and glossy, with a few scanty hairs visible under magnification; very heavy, frequently sinking in water; calyx persistent, green, rather larger than that of the ordinary orange; skin adhering very close to the fruit, thin,  $\frac{3}{32}$  to  $\frac{1}{8}$  inch thick, tender; oil glands small and round; pulp tender, melting, exceptionally juicy; color orange-yellow; pulp cells small, similar in shape to those of ordinary orange; segments, 10; membranes thin and tender, thus making very little rag; axis small,  $\frac{1}{8}$  to  $\frac{3}{16}$  inch in diameter; flavor sprightly acid and slightly bitter; nearly seedless, averaging one seed to two fruits; aroma strong and pleasant, a combination of that of the sweet orange and the Trifoliate orange. Tree similar in shape to Trifoliate orange, vigorous and hardy, evergreen or semi-evergreen, tall and shapely; foliage dense, leaves trifoliate and larger than those of the ordinary Trifoliate orange. Season of maturity very early, from September 1 to November 1.

Approved: ✓

B. T. GALLOWAY,

*Chief of Bureau.*

OCTOBER 16, 1909.

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